



BASIC INFORMATION

DESCRIPTION

A blood clot or fat cells (rarely) in one of the arteries carrying blood to the lungs. The blood clot begins in a deep vein of the leg or pelvis. A fat embolus usually begins at a fracture site. The clot or embolus moves through the bloodstream, passing through the heart and lodging in the branch of an artery that nourishes the lungs. This blockage decreases breathing ability and sometimes destroys lung tissue. It can affect all ages, but is most common in adults.

FREQUENT SIGNS AND SYMPTOMS

- Sudden shortness of breath.
- Faintness or fainting.
- Pain in the chest.
- Cough (sometimes with bloody sputum).
- Rapid heartbeat.
- Low fever.

These symptoms are often preceded by swelling and pain in the leg.

CAUSES

Deep-vein thrombosis, which can occur anytime that blood pools in a vein.

RISK INCREASES WITH

- Adults over age 60.
- Any injury or illness that requires prolonged bed rest.
- Sitting in one position for prolonged periods, as on airplane flights.
- Recent surgery.
- Congestive heart failure.
- Heart-rhythm disturbances.
- Polycythemia; hemolytic anemia.
- Bone fractures.
- Obesity; smoking.
- Pregnancy.
- Use of oral contraceptives, especially in women who smoke.

PREVENTIVE MEASURES

- Avoid prolonged bed rest during illnesses. Wear elastic stockings during recuperation (in or out of bed).
- Start moving lower limbs and walking as soon as possible after surgery.
- Don't smoke, especially if you are a woman age 35 or older who takes birth-control pills.
- Avoid needless surgery. Get a second opinion.
- When traveling, stand and walk every 1 to 2 hours.
- One aspirin a day may prevent. Ask your doctor.

EXPECTED OUTCOMES

Usually curable in 10 to 14 days with intensive care.

POSSIBLE COMPLICATIONS

- Rapid death from a large clot that obstructs more than 50% of the blood to the lungs.
- Massive bleeding in the lungs caused by smaller clots.



TREATMENT

GENERAL MEASURES

- Diagnostic tests may include chest X-ray, lung scan, pulmonary angiography, ECG, auscultation, and laboratory blood studies to measure coagulation factors and prothrombin time.
- Treatment is aimed at maintaining adequate cardiovascular and pulmonary functions (during resolution of the clot) and preventing recurrence.
- Surgery may be necessary to tie off the big vein leading to the heart and lungs (vena cava) or insertion of a filter to trap recurrent clots (rare).
- Wear elastic stockings or leg wraps with elastic bandages.
- Don't sit with your legs or ankles crossed.
- Elevate your feet higher than your hips when sitting for long periods.
- Elevate the foot of your bed.

MEDICATIONS

- Anticoagulant drugs to dissolve and prevent clots. The anticoagulant level must be monitored to keep it in a safe range.
- Oxygen, if needed.
- Antibiotics if septic emboli.

ACTIVITY

Rest in bed until all symptoms and signs of clot inflammation disappear. While in bed, move your legs often to stimulate circulation.

DIET

No special diet.



NOTIFY OUR OFFICE IF

- You or a family member has symptoms of pulmonary embolism. This is an emergency!
- The following occur during treatment:
 - Chest pain.
 - Coughing up blood.
 - Shortness of breath.
 - Increased swelling and pain in the leg.